

REMARKS

Applicants respectfully acknowledge receipt of the Office Action mailed October 18, 2005.

In the Office Action, the Examiner rejected claims 1, 4, 5, and 10 under 35 U.S.C. § 102(e) as being anticipated by *Rossman* (U.S. Pub. No. 2003/0211735); and rejected claims 2, 3, 6-9, and 11-18 under 35 U.S.C. § 103(a) as being unpatentable over *Rossman* in view of *Takahashi* (U.S. Patent No. 5,520,743).

By this Amendment, Applicants amend claims 2, 3, 6-9, and 11-18 and cancel claims 1, 4, 5, and 10 without prejudice or disclaimer. After entry of this Amendment, claims 2, 3, 6-9, and 11-18 will remain pending. Of these claims, claims 2 and 11 are independent.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to claims 2, 3, 6-9, and 11-18. No new matter has been introduced.

Based on the forgoing amendments, Applicant traverse the rejections above and respectfully request reconsideration for at least the reasons that follow.

I. 35 U.S.C. § 102(e) REJECTION

Claims 1, 4, 5, and 10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Rossman*.

Although Applicants respectfully traverse the Examiner's rejection above, in an effort to expedite prosecution, Applicants have canceled claims 1, 4, 5, and 10 without prejudice or disclaimer. Accordingly, the rejection of claims 1, 4, 5, and 10 under 35 U.S.C. § 102(e) is rendered moot and should be withdrawn.

II. 35 U.S.C. § 103(a) REJECTION

Claims 2, 3, 6-9, and 11-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Rossmann* in view of *Takahashi*. Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that amended independent claims 2 and 11 patentably distinguish over *Rossmann* and *Takahashi* at least for the following reasons.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Each of the three requirements, moreover, must "be found in the prior art, and not be based on applicant's disclosure." See M.P.E.P. §2143, 8th ed., February 2003.

Rossmann discloses a plasma vapor deposition system 110 including a chamber 113, a substrate 117, a gas delivery system 133, a first exhaust path 70 (through which gases are exhausted from the chamber during a cleaning process), and a second exhaust path 72 (through which gases are exhausted during deposition). (*Rossmann*, [0031], [0039], [0049], Fig. 6, and Fig. 7A).

However, as admitted by the Examiner, *Rossmann* is silent with respect to "a hoisting/lowering mechanism for holding mechanism and relative heights of exhaust mechanism with respect to wafer holding mechanism." (*Office Action*, p. 4, ll. 5-6).

Additionally, *Rossmann* does not disclose wherein a first exhaust port is positioned higher than a surface of the substrate on the holding mechanism in the process chamber, as required by Applicants' claims 2 and 11 (emphases added).

Accordingly, with regard to independent claim 2, *Rossmann* fails to teach or suggest the claimed combination including, *inter alia*:

“a holding mechanism having a surface provided in the process chamber and configured to horizontally hold the substrate on the surface; a first exhaust mechanism having a first exhaust port positioned higher than a surface of the substrate on the holding mechanism in the process chamber...and a second exhaust mechanism having a second exhaust port positioned lower than the holding mechanism in the process chamber.” (emphases added)

Similarly, with respect to independent claim 11, it is also clear that *Rossmann* does not teach or suggest each and every element, including, *inter alia*:

“a holding mechanism having a surface provided in the process chamber and configured to horizontally hold the substrate on the surface; a first exhaust mechanism having a first exhaust port positioned higher than a surface of the substrate on the holding mechanism in the process chamber...and a second exhaust mechanism having a second exhaust port positioned lower than the holding mechanism in the process chamber.” (emphases added)

In order to cure the deficiencies of *Rossmann*, the Examiner relies on *Takahashi* for its asserted disclosure of “a mount 18 for holding wafer W...[a] first exhaust port 33...positioned higher than [a] second exhaust port 45 that is positioned lower than said holding mechanism 18...[and] a lift mechanism 91.” (*Office Action*, p. 4, ll. 7-10).

Applicants note, however, that with respect to independent claim 2, *Takahashi* does not teach or suggest, among other things, the claimed combination including, *inter alia*:

“a holding mechanism having a surface provided in the process chamber and configured to horizontally hold the

substrate on the surface, a first exhaust mechanism having a first exhaust port positioned higher than a surface of the substrate on the holding mechanism in the process chamber...and a second exhaust mechanism having a second exhaust port positioned lower than the holding mechanism in the process chamber.” (emphases added)

Similarly, with respect to independent claim 11, it is also clear that *Takahashi* does not teach or suggest each and every element, including, *inter alia*:

“a holding mechanism having a surface provided in the process chamber and configured to horizontally hold the substrate on the surface; a first exhaust mechanism having a first exhaust port positioned higher than a surface of the substrate on the holding mechanism in the process chamber...and a second exhaust mechanism having a second exhaust port positioned lower than the holding mechanism in the process chamber.” (emphases added)

Rather, *Takahashi* discloses a processing apparatus including a mount 18, a first exhaust pipe 32, a second exhaust pipe 45, and a lift mechanism 91, wherein a middle lid 19 (supporting mount 18) is lowered by the lift mechanism 91 to a position indicated by a chain line and lifted by the lift mechanism 91 to a position indicated by a solid line, as illustrated in Fig. 1. (*Takahashi*, col. 3, ll. 38-57 and col. 4, ll. 18-47). When the mount is lifted to the position indicated by the solid line, first exhaust pipe 32 is positioned lower than a surface of the wafer W (emphasis added). (*Id.* at Fig. 3). Conversely, in the present invention, “since the first exhaust ports 105 are positioned higher than the surface of the wafer W, uniformity of the process applied to the wafer W can be maintained.” (*Specification*, p. 11, [0048]).

The Examiner has therefore not met at least one of the essential criteria for establishing a *prima facie* case of obviousness, wherein “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” *See*

M.P.E.P. §§ 2142, 2143, and 2143.03. Accordingly, independent claims 2 and 11, claims 3 and 6-9 that depend from claim 2, and claims 12-18 that depend from claim 11, are patentable over *Rossman* and *Takahashi*. Applicants therefore request that the rejection of claims 2, 3, 6-9, and 11-18 under 35 U.S.C. § 103(a) be withdrawn and claims 2, 3, 6-9, and 11-18 be allowed.

III. CONCLUSION

Applicants respectfully submit that independent claims 2 and 11 are in condition for allowance. In addition, claims 3 and 6-9 are in condition for allowance at least due to their dependence from independent claim 2, and claims 12-18 are in condition for allowance at least due to their dependence from independent claim 11.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.


In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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